

1. An apparatus for flushing data from a cache to secondary storage, the apparatus comprising:  
  
an identification module configured to identify predefined high priority cache structures and predefined low priority cache structures; and  
  
a flushing module configured to selectively flush low priority cache structures according to a first scheme in response to a higher demand load and a second scheme in response to a lower demand load.
2. The apparatus of claim 1, wherein selection criteria of the second scheme comprises the inverse of selection criteria of the first scheme.
3. The apparatus of claim 1, wherein the higher demand load exists when free space in a cache decreases below a selected free space threshold.
4. The apparatus of claim 1, further comprising a sort module configured to order the low priority cache structures according to size.
5. The apparatus of claim 1, wherein the first scheme selects a low priority cache structure that will free a greater amount of space in a cache and the second scheme selects a low priority cache structure that will free a lesser amount of space in a cache.
6. The apparatus of claim 1, wherein the lower demand load comprises substantially no demand.

7. An apparatus for flushing data from a cache to secondary storage, the apparatus comprising:
- a sort module configured to order predefined high priority cache structures and predefined low priority cache structures according to a first criteria and a second criteria; and
  - a flushing module configured to selectively flush low priority cache structures according to a first scheme in response to a higher demand load and a second scheme in response to a lower demand load.
8. The apparatus of claim 7, wherein the first scheme selects a low priority cache structure according to an order opposite the order used under the second scheme.
9. The apparatus of claim 7, wherein the higher demand load exists when free space in a cache decreases below a selected free space threshold.
10. The apparatus of claim 7 wherein the first criteria comprises a least recently used algorithm and the second criteria comprises a size algorithm.
11. The apparatus of claim 7, wherein the first scheme selects a low priority cache structure that will free a greater amount of space in a cache and the second scheme selects a low priority cache structure that will free a lesser amount of space in a cache.
12. The apparatus of claim 7, wherein the lower demand load comprises substantially no demand.

13. A system for flushing data from a cache to secondary storage, comprising:  
a storage manager configured to transfer data between a host and a  
plurality of logical volumes corresponding to one or more physical  
volumes, the logical volumes identified as low priority and high  
priority;  
a media library configured to transfer data between a direct access storage  
device cache configured to cache logical volumes and one or more  
physical volumes; and  
a cache manager configured to manage logical volumes stored in the  
direct access storage device cache and selectively flush low priority  
logical volumes according to a first scheme in response to a higher  
demand load and a second scheme in response to a lower demand  
load.
14. The system of claim 13, wherein selection criteria of the second scheme  
comprises the inverse of selection criteria of the first scheme.
15. The system of claim 13, wherein the higher demand load exists when free  
space in the direct access storage device cache decreases below a selected free space  
threshold.
16. The system of claim 13, further comprising ordering the low priority  
logical volumes according to size.
17. The system of claim 13, wherein the first scheme selects a low priority  
logical volume that will free a greater amount of space in the direct access storage device

cache and the second scheme selects a low priority logical volume that will free a lesser amount of space in the direct access storage device cache.

18. The system of claim 13, wherein the lower demand load comprises substantially no demand.

19. A method for flushing data from a cache to secondary storage, comprising:  
identifying predefined high priority cache structures and predefined low  
priority cache structures; and  
selectively flushing low priority cache structures according to a first  
scheme in response to a higher demand load and a second scheme  
in response to a lower demand load.

20. The method of claim 19, wherein selection criteria of the second scheme comprises the inverse of selection criteria of the first scheme.

21. The method of claim 19, wherein the higher demand load exists when free space in a cache decreases below a selected free space threshold.

22. The method of claim 19, further comprising ordering the low priority cache structures according to size.

23. The method of claim 19, wherein the first scheme selects a low priority cache structure that will free a greater amount of space in a cache and the second scheme selects a low priority cache structure that will free a lesser amount of space in a cache.

24. The method of claim 18, wherein the lower demand load comprises substantially no demand.

25. An apparatus for flushing data from a cache to secondary storage, comprising:

means for identifying predefined high priority cache structures and

predefined low priority cache structures; and

means for selectively flushing low priority cache structures according to a

first scheme in response to a higher demand load and a second

scheme in response to a lower demand load.

26. The apparatus of claim 25, wherein selection criteria of the second scheme comprises the inverse of selection criteria of the first scheme.

27. The apparatus of claim 25, wherein the higher demand load exists when free space in a cache decreases below a selected free space threshold.

28. An article of manufacture comprising a program storage medium readable by a processor and embodying one or more instructions executable by a processor to perform a method for flushing data from a cache to secondary storage, the method comprising:

identifying predefined high priority cache structures and predefined low priority cache structures; and  
selectively flushing low priority cache structures according to a first scheme in response to a higher demand load and a second scheme in response to a lower demand load.

29. The article of manufacture of claim 28, wherein selection criteria of the second scheme comprises the inverse of selection criteria of the first scheme.

30. The article of manufacture of claim 28, wherein the higher demand load is determined to exist when free space in a cache decreases below a selected free space threshold.